

REMARKS

I. Status Summary

Claims 1-43 are pending and have been examined. A Notice of Appeal was filed on September 10, 2007.

In a Final Official Action dated March 9, 2007 (hereinafter "the Final Official Action"), the United States Patent and Trademark Office (hereinafter "the Patent Office") rejected claims 1-43 on several bases under 35 U.S.C. § 103(a). Particularly, claims 1-43 have been rejected over U.S. Patent No. 6,281,189 to Heimann et al. (hereinafter "Heimann") in view of U.S. Patent Application Publication No. 2003/0213747 of Carbonell et al. (hereinafter "Carbonell"); and claims 1-19, 21-28, and 33-43 have been rejected over U.S. Patent No. 5,143,639 to Krawack (hereinafter "Krawack") in view of Carbonell; claims 20 and 29-32 have been rejected over Krawack in view of Carbonell as applied to claims 1-19, 21-28, and 33-43 and further in view of Heimann.

Claims 1-19, 21-28, and 33-43 have also been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-17 of co-pending U.S. Patent Application Serial No. 11/248,782 in view of Carbonell.

Claim 1 has been amended. Support for the amendment can be found throughout the specification as filed, including particularly at page 20, lines 16-27 ("petroleum residue" encompasses asphalt) and at page 22, lines 6-12 ("Bitumen is the predominant constituent of petroleum residues, including asphalt"). Thus, no new matter has been added by the amendment to claim 1.

New claims 105-110 have been added. Support for the new claims can be found throughout the specification as filed, including particularly at page 18, line 16, through page 19, line 4. Additional support can be found at page 4, lines 20-21 (composition is non-corrosive); in Table 2 on page 30; and at page 15, lines 13-24 (use of 2-ethylhexyl esters including, but not limited to esters of oleic, palmitic, adipic, steric, and succinic acids). Thus no new matter has been added by the inclusion of new claims 105-110.

Reconsideration of the application in light of the remarks set forth hereinbelow is respectfully requested.

II. Responses to the Obviousness Rejections

Claims 1-43 have been rejected on several bases under 35 U.S.C. § 103(a). First, claims 1-43 have been rejected under 35 U.S.C. § 103(a) over Heimann in view of Carbonell. Next, claims 1-19, 21-28, and 33-43 have been rejected under 35 U.S.C. § 103(a) over Krawack in view of Carbonell. And finally, claims 20 and 29-32 have been rejected under 35 U.S.C. § 103(a) over Krawack in view of Carbonell as applied to claims 1-19, 21-28, and 33-43 and further in view of Heimann. The Patent Office's assertions in support of these rejections are presented on pages 4-8 of the Official Action.

After careful consideration of the rejections and the Patent Office's bases therefor, applicants respectfully traverse the rejections and submit the following remarks.

II.A. Response to the Rejection over Heimann in view of Carbonell

Claims 1-43 have been rejected under 35 U.S.C. § 103(a) over Heimann in view of Carbonell. According to the Patent Office, Heimann teaches a composition containing at least one soybean oil-derived compound and at least one member chosen from the group of drying agents, co-solvents, and additives. The composition is asserted to comprise methyl soyate and d-limonene. Particularly, the Patent Office asserts that Heimann teaches compositions containing from 0.5-20% by weight of at least one drying agent, 1-30% by weight of at least one co-solvent, additives from 0-25% by weight, and 5-75% by weight of methyl soyate. Suitable additives are asserted to include surfactants, emulsifiers, antimicrobial compounds, etc. Suitable co-solvents are asserted to include water, hydrocarbon glycols, and mixtures thereof, among others. The compositions disclosed are asserted to be useful for tar and asphalt removal among other uses.

The Patent Office concedes that Heimann does not teach the use of a benzoic acid ester or a composition having the specific physical parameters containing a benzoic acid ester, methyl soyate, nonionic surfactant, water, and the other requisite

components of the compositions in the specific amounts recited in the instant claims. The Patent Office contends, however, that these deficiencies are cured by Carbonell, which is asserted to teach environmentally friendly solvents comprising GRAS solvents such as benzoic acid ester solvents, preferably containing at least 70-99% by weight of one or more esters such as methyl benzoic acid ester, isopropylbenzoic acid ester, methyl salicylate, ethyl salicylate, etc. As such, the Patent Office asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a benzoic acid ester solvent in the cleaning composition taught by Heimann because Carbonell teach the use of such solvents such as benzoic acid esters in similar cleaning compositions and that benzoic acid esters are environmentally friendly solvents, and further that Heimann teaches the use of various co-solvents which would encompass benzoic acid ester solvents. The Patent Office further asserts that it would have been obvious to formulate a composition containing a benzoic acid ester, methyl soyate, nonionic surfactant, water, and the other requisite components of the composition in the specific amounts recited in the instant claims because the broad teachings of Heimann in combination with Carbonell suggest a composition containing a benzoic acid ester, methyl soyate, nonionic surfactant, water, and the other requisite components of the composition in the specific amounts as recited in the instant claims.

Applicants respectfully disagree. Initially, applicants respectfully submit that the Patent Office is apparently misinterpreting the term "cosolvent" in its assertion that a benzoic acid ester solvent could be considered a cosolvent. Applicants respectfully submit that the instant specification defines a "co-solvent" as "any substance, which upon addition to a composition increases the solubility of the composition in a particular solvent, such as water". See page 16, lines 9-11. Applicants respectfully submit that since the instant claims relate to water-soluble petroleum residue solvents, it is clear that one of ordinary skill in the art would understand that a cosolvent would have to increase the solubility of a material in water. Given that a benzoic acid ester would not increase the solubility of methyl soyate and d-limonene in water, applicants respectfully submit that contrary to the Patent Office's assertion, a benzoic acid ester cannot be considered a "cosolvent" as that term would be interpreted by one of ordinary skill in the art after consideration of the instant specification as a whole. Thus, the instant

assertion fails to support a *prima facie* case of obviousness of claims 1 because one of ordinary skill in the art would not have been motivated to employ a benzoic acid ester as a cosolvent in the composition of Heimann.

Continuing with the instant rejection, applicants respectfully submit that the Patent Office has not followed the requirements of M.P.E.P. §§ 2141 *et seq.* in analyzing the instantly claimed subject matter. Particularly, applicants respectfully submit that the Patent Office has not presented a reasonable discussion of the Heimann and Carbonell references when considered in their entireties and has not appropriately considered the differences between the teachings of the prior art documents and the instantly claimed subject matter.

To elaborate, M.P.E.P. § 2141 clearly states that analysis of claims under 35 U.S.C. § 103(a) must follow the procedure outlined in *Graham v. John Deere Co.* (383 U.S. 1, 148 USPQ 459 (1966) as further set forth in *KSR International Co. v. Teleflex Inc.* (KSR), 550 U.S. ___, 82 USPQ2d 1385 (2007). Thus, the proper obviousness inquiry begins with the following three determinations:

- (A) the scope and contents of the prior art;
- (B) the differences between the prior art and the claims in issue; and
- (C) the level of ordinary skill in the pertinent art.

Applicants respectfully submit that the Patent Office has not considered the references as a whole and in their entireties. For example, M.P.E.P. § 2141.03 clearly states that a prior art reference must be considered in its entirety, *i.e.*, as a whole (*citing W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)). Applicants respectfully submit that the Patent Office's discussion of the cited references fails to consider that with respect to Heimann, there is no disclosure as to the makeup of any compositions that are appropriate for any of the laundry list of uses that the reference alleges that the compositions are useful for.

Therefore, applicants respectfully submit that if one of ordinary skill in the art were to consider how to make a composition for dissolving asphalt, bitumen, or combinations thereof as instantly claimed, Carbonell would necessarily provide the starting point. And with respect to Carbonell, applicants respectfully submit that this reference discloses that such compositions comprise

at least about 70, 80, 85, 90, 95, or 99 percent by weight of the one or more benzoic acid esters. In one preferred embodiment, the benzoic acid ester-containing solvent contains from about 90 to about 95 percent by weight of the one or more benzoic acid esters. The benzoic acid ester may contain other components, processing aids, and the like as deemed appropriate by one skilled in the art.

Carbonell at paragraph [0039].

Therefore, applicants respectfully submit that when the disclosures of Heimann and Carbonell are taken in their entireties, at best they would suggest to one of ordinary skill in the art that in order to make a composition comprising an aromatic ester such as a benzoic acid ester and an aliphatic ester such as methyl soyate for dissolving asphalt, bitumen, and combinations thereof as recited in claim 1, one would start with at least about 70% benzoic acid ester and add methyl soyate. Since under these conditions the composition would comprise at least about 70% benzoic acid ester, at most it could contain 30% methyl soyate provided that it did not include any additional “components, processing aids, and the like as deemed appropriate by one skilled in the art” as set forth in Carbonell.

Applicants respectfully submit that such a composition does not read on or suggest the subject matter of the instant claims. Specifically, instant claim 1 recites that the composition comprises *inter alia* (a) from about 10% to about 60% by weight of an aromatic ester; (b) from about 30% to about 60% by weight of an aliphatic ester; and optionally one or more of a co-solvent; a cyclic terpene; a terpenoid; an odor-masking agent; and a nonionic surfactant. There is no disclosure in these references or in any other source cited by the Patent Office that would have suggested that benzoic acid ester-containing compositions for the removal of petroleum residues can include less than 70% benzoic acid ester.

As such, applicants respectfully submit that the Patent Office has not presented a *prima facie* case of obviousness of claim 1 over the combination of Heimann and Carbonell.

Additionally, applicants respectfully submit the following remarks with respect to the Patent Office’s “Response to Arguments” presented beginning on page 10 of the Final Official Action. First, the Patent Office asserts that one of ordinary skill in the art

would have been motivated to use a benzoic acid ester solvent in the composition of Heimann because Carbonell teach the use of solvents such as benzoic acid esters and Heimann “teach the use of various cosolvents which would encompass benzoic acid ester solvents”. As set forth hereinabove, a benzoic acid ester is not a “cosolvent” because “cosolvent” does not refer to “another solvent” as apparently believed by the Patent Office. This is further set forth in Heimann at column 2, lines 13-17, which state that “[t]he co-solvent can comprise at least one member selected from the group consisting of water, soybean oil, hydrocarbon glycols, mixtures thereof, among others. The co-solvent can also comprise at least one propellant that is used for pressurized dispensing of the composition”.

As such, one of ordinary skill in the art would understand that Heimann employs the term “co-solvent” in the same way that it is employed in the instant application – *i.e.*, as a material that increases the solubility of the composition in a solvent such as water. Therefore, applicants respectfully submit that the Patent Office’s assertion that the benzoic acid ester of Carbonell would be a “co-solvent” within the meaning of Heimann is believed to be incorrect. This also rebuts the Patent Office’s assertion that the benzoic acid ester of Carbonell could be employed in the composition of Heimann in an amount from 1-30% by weight, since these percentages in Heimann relate to co-solvents, which a benzoic acid ester is not.

Summarily, applicants respectfully submit that the Patent Office has not considered the references in their entireties as is required for a proper analysis under 35 U.S.C. § 103. Applicants respectfully submit that the Patent Office’s interpretation of the Heimann reference is also believed to be improper in that the term “co-solvent” is being misinterpreted. As a result, applicants respectfully submit that the Patent Office has not presented a *prima facie* case of obviousness of claim 1 over the combination of Heimann and Carbonell.

Accordingly, applicants respectfully request that the instant rejection of claim 1 over Heimann and Carbonell be withdrawn at this time. Applicants further respectfully submit that claims 2-43 all depend directly or indirectly from claim 1, and thus are also believed to be distinguished over the cited combination.

II.B. Response to the Rejection over Krawack in view of Carbonell

Claims 1-19, 21-28, and 33-43 have been rejected under 35 U.S.C. § 103(a) over Krawack in view of Carbonell. According to the Patent Office, Krawack teaches compositions for removing inks and the like from printing machines. These compositions are asserted to contain a mixture of 50-100% by weight of a C₁-C₅ alkyl ester of an aliphatic C₈-C₂₂ monocarboxylic acid or a mixture of such esters, 0-50% by weight of vegetable oil, 0-10% by weight of a surfactant, and a corrosion inhibitor in an amount of up to 2% by weight.

While the Patent Office concedes that Krawack does not teach the use of a benzoic acid ester, the Patent Office asserts that this deficiency is cured by Carbonell. The Patent Office thus asserts that it would have been *prima facie* obvious to one of ordinary skill in the art to have used a benzoic acid ester in the cleaning composition taught by Krawack because Carbonell teaches the use of solvents such as benzoic acid esters in similar cleaning compositions and that benzoic acid esters are environmentally friendly solvents. The Patent Office further asserts that it is *prima facie* obvious to combine two compositions, each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose (*citing In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)). The Patent Office further asserts that it would have been *prima facie* obvious to one of ordinary skill in the art to have formulated the claimed composition because the broad teachings of Krawack in combination with Carbonell suggest a composition containing a benzoic acid ester, methyl soyate, nonionic surfactant, water, and the other requisite components of the composition in the specific amounts as recited in the instant claims.

Applicants respectfully disagree. Initially, applicants respectfully submit that the comments presented hereinabove with respect to the rejection over Heimann and Carbonell are equally applicable to the instant rejection. Particularly, applicants respectfully submit that the Patent Office has not considered these references in context and in their entireties, and if this was done, it is clear that the combination of Heimann and Carbonell do not support the instant rejection.

For example, applicants respectfully submit that Krawack does not relate to compositions for removing petroleum residues from substrates. Rather, this reference teaches compositions for removing fats and/or inks and the like from printing machines. There is no disclosure whatsoever that the compositions disclosed therein can be used for any other purpose.

Therefore, similar to the case hereinabove with respect to the rejection over Heimann and Carbonell, if one of ordinary skill in the art were to consider how to produce a composition for removing petroleum residues from a substrate, they would consider first the teachings of the Carbonell reference. Also similarly, one of ordinary skill in the art would begin with an understanding that such compositions would include at least 70% of a benzoic acid ester. As such, even if Krawack and Carbonell were combined, they would not suggest the subject matter of claim 1.

Continuing with the instant rejection, applicants respectfully reiterate that the Patent Office has misinterpreted the holding of *In re Kerkhoven* in an attempt to claim that Krawack and Carbonell teach compositions useful for the same purpose. Applicants respectfully submit that it is inherent in the holding of *In re Kerkhoven* that if the prior art references do not relate to the same purpose, then the *In re Kerkhoven* rules does not apply. Applicants respectfully submit that the Patent Office's attempt to generalize the instant subject matter to merely a "cleaning solution" in order to combine it with Krawack is believed to be improper.

More specifically, applicants respectfully submit that cleaning fats and/or inks from printing machines as disclosed in Krawack cannot be read as being the same "purpose" as removing petroleum residues comprising asphalt, bitumen, and combinations thereof from substrates under the holding of *In re Kerkhoven*. Applicants respectfully submit that the components of inks differ substantially from the components of asphalt and bitumens, and thus one of ordinary skill in the art would not have believed that a composition useful for one purpose would also be useful for the other. Therefore, applicants respectfully submit that Krawack and Carbonell do not involve compositions that are useful for the same purpose under *In re Kerkhoven*, and thus this case is inapplicable to the instant rejection. As such, applicants respectfully submit that

In re Kerkhoven cannot be relied on to establish a *prima facie* obviousness of claims 1-19, 21-28, and 33-43 over Krawack and Carbonell.

Furthermore, even assuming *arguendo* that one of ordinary skill in the art would have been motivated to combine Krawack and Carbonell, the Patent Office has presented no basis for concluding that the compositions would include the various components and in the relative amounts as set forth in the instant claims. For example, the Patent Office asserts on page 13 of the Final Official Action that “one of ordinary skill in the art would be motivated to replace some of the methyl soyate of Krawack with benzoic acid ester solvent in amounts that fall within the scope of the claims” (emphasis added).

However, the Patent Office provides no support for this claim. Rather, the instant assertion results from mere speculation by the Patent Office that falls far short of presenting a *prima facie* case of obviousness of claim 1. In fact, applicants respectfully submit that in the absence of some suggestion to use the various components in the claimed proportions, the Patent Office’s instant assertion is an example of precisely the kind of hindsight that is expressly forbidden in M.P.E.P. § 2142, which cautions that “impermissible hindsight must be avoided and the legal conclusion [of *prima facie* obviousness] must be reached on the basis of the facts gleaned from the prior art” (emphases added). Applicants respectfully submit that the Patent Office’s speculation regarding whether one of ordinary skill in the art would be motivated to replace “some of the methyl soyate” with benzoic acid ester in order to generate a composition for removing petroleum residue from a substrate as recited in claim 1 is not based on the basis of facts gleaned from the prior art, and thus does not support the instant rejection.

As such, applicants respectfully submit that the Patent Office has not established a *prima facie* case as required by M.P.E.P. § 2143. Particularly, the Patent Office must provide *inter alia* a convincing line of evidence that one of ordinary skill in the art would have been motivated to combine Krawack and Carbonell. Applicants respectfully submit that the Patent Office has provided no such convincing line of evidence, and as such, has not established its *prima facie* case.

Accordingly, applicants respectfully request that the rejection of claims 1-19, 21-28, and 33-43 have been rejected under 35 U.S.C. § 103(a) over Krawack in view of Carbonell be withdrawn at this time.

II.C. Response to the Rejection over Krawack in view of Carbonell
and further in view of Heimann

Claims 20 and 29-32 have been rejected under 35 U.S.C. § 103(a) over the combination of Krawack, Carbonell, and Heimann. According to the Patent Office, it would have been *prima facie* obvious to use d-limonene as a fragrance in the composition taught by Krawack because Heimann taught the use of d-limonene as an odorant in a similar cleaning composition, and further because odorants such as d-limonene are notoriously well known as suitable for use in cleaning compositions and desirable for such use.

Applicants respectfully disagree. Initially, applicants respectfully submit that claims 20 and 29-32 all depend directly from claim 1, and thus include all the limitations of claim 1. Applicants respectfully submit that the comments presented hereinabove with respect to the rejections of claim 1 over the combination of Heimann and Carbonell and Krawack and Carbonell are equally applicable here. Thus, applicants respectfully submit that since the Patent Office has failed to establish a *prima facie* case of obviousness of claim 1 over these combinations, the Patent Office has also failed to establish a *prima facie* case of obviousness of claims 20 and 29-32 since claims 20 and 29-32 all depend from claim 1.

Furthermore, applicants respectfully submit that with respect to claims 29-32, the Patent Office has provided no support for the assertion that even if one of ordinary skill in the art would have combined Krawack, Carbonell, and Heimann, that such a combination would have suggested the subject matter of these claims. Particularly, applicants respectfully submit that there is no suggestion in the combination of Krawack, Carbonell, and Heimann that would have led one of ordinary skill in the art to prepare a composition comprising: (a) about 50% by weight of an aromatic ester; about 40% by weight of an aliphatic ester; about 10% by weight of a co-solvent; and about 0.1% by

weight of an odor-masking agent (claim 29); (b) about 40% by weight of an aromatic ester; about 50% by weight of an aliphatic ester; about 10% by weight of a co-solvent; and about 0.1% by weight of an odor-masking agent (claim 30); (c) about 40% by weight of an aromatic ester; about 50% by weight of an aliphatic ester; about 10% by weight of a co-solvent; about 0.1% by weight of an odor-masking agent; and about 0.4% by weight of a nonionic surfactant (claim 31); or (d) about 40% by weight of an aromatic ester; about 50% by weight of an aliphatic ester; about 10% by weight of a co-solvent; about 0.1% by weight of an odor-masking agent; and about 0.8% by weight of a nonionic surfactant.

To elaborate, applicants respectfully submit that these claims each relate to a species of the genus of claim 1. With respect to the obviousness of species and subgenus claims, applicants respectfully submit that M.P.E.P. § 2144.08(A)(5) expressly requires that:

Based on the evidence as a whole...Office personnel should make express fact-findings relating to the *Graham* factors, focusing primarily on the prior art teachings discussed above. The fact-findings should specifically articulate what teachings or suggestions in the prior art would have motivated one of ordinary skill in the art to select the claimed species or subgenus.

Applicants respectfully submit that the Patent Office has identified no teachings or suggestions in the prior art that would have motivated one of ordinary skill in the art to select any of the specific embodiments encompassed by claims 29-32. Therefore, applicants respectfully submit that the Patent Office has not presented a *prima facie* case of obviousness of these claims for this additional reason.

Accordingly, applicants respectfully submit that claims 20 and 29-32 are believed to be distinguished over the combination of Krawack, Carbonell, and Heimann, and further respectfully request that the rejection under 35 U.S.C. § 103(a) over this combination be withdrawn at this time.

III. Response to the Provisional Double Patenting Rejection

Claims 1-19, 21-28, and 33-43 have been provisionally rejected under the judicially-created doctrine of non-statutory obviousness-type double patenting over claims 1-17 of co-pending application serial number 11/248,782 in view of Carbonell. Applicants respectfully submit, however, that the instant application has an earlier filing date (March 2, 2004) than the cited co-pending application (priority to October 12, 2004).

Accordingly, applicants respectfully request that action on the instant rejection be deferred unless and until one or more of the allegedly conflicting claims of the co-pending application are placed into condition for allowance.

IV. Discussion of the New Claims

New claims 105-110 have been added. Support for the new claims can be found throughout the specification as filed, including particularly at page 18, line 16, through page 19, line 4. Additional support can be found at page 4, lines 20-21; in Table 2 on page 30; and at page 15, lines 13-24. Thus no new matter has been added by the inclusion of new claims 105-110.

Applicants respectfully submit that the remarks set forth hereinabove that distinguish claims 1-43 are equally applicable to distinguish new claims 105-110. As a result, applicants respectfully submit that claims 1-43 and 105-110 are believed to be in condition for allowance, and respectfully solicit a Notice of Allowance to that effect.

CONCLUSIONS

Should there be any minor issues outstanding in this matter, the Examiner is respectfully requested to telephone the undersigned attorney. Early passage of the subject application to issue is earnestly solicited.

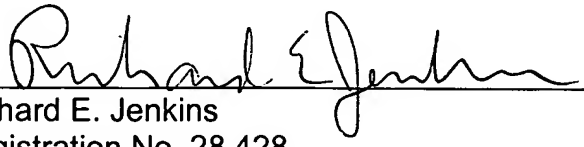
DEPOSIT ACCOUNT

The Commissioner is hereby authorized to charge any deficiencies or credit any overpayments associated with the filing of this correspondence to Deposit Account Number 50-0426.

Respectfully submitted,

JENKINS, WILSON, TAYLOR & HUNT, P.A.

Date: April 9, 2008

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REJ/CPP/dbp 1456/3

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